

Администрирование сетевых подсистем

Лабораторная работа №9

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Цели и задачи работы

Цель лабораторной работы

Приобретение практических навыков установки, конфигурирования и проверки работы POP3/IMAP-сервера на базе Postfix и Dovecot.

Ход выполнения

Установка и настройка Dovecot

```
|transaction test succeeded.  
Running transaction  
Preparing :  
Installing : telnet-1:0.17-94.el10.x86_64 1/1  
Running scriptlet: dovecot-1:2.3.21-16.el10.x86_64 1/2  
Installing : dovecot-1:2.3.21-16.el10.x86_64 2/2  
Running scriptlet: dovecot-1:2.3.21-16.el10.x86_64 2/2  
  
Installed:  
dovecot-1:2.3.21-16.el10.x86_64 telnet-1:0.17-94.el10.x86_64  
  
Complete!  
[root@server.dgavdadaev.net server]#
```

Рис. 1: Установка пакетов dovecot и telnet

Настройка протоколов

```
15
16 # Default values are shown for each setting, it's not required to uncomment
17 # those. These are exceptions to this though: No sections (e.g. namespace {})
18 # or plugin settings are added by default, they're listed only as examples.
19 # Paths are also just examples with the real defaults being based on configure
20 # options. The paths listed here are for configure --prefix=/usr
21 # --sysconfdir=/etc --localstatedir=/var
22
23 # Protocols we want to be serving.
24
25 protocols = imap pop3
26
```

Рис. 2: dovecot.conf – IMAP/POP3

Настройка аутентификации

```
95
96 # Space separated list of wanted authentication mechanisms:
97 # plain login digest-md5 cram-md5 ntlm rpa apop anonymous gssapi otp
98 # gss-spnego
99 # NOTE: See also disable_plaintext_auth setting.
100 auth_mechanisms = plain
101
```

Рис. 3: 10-auth.conf

Источники данных пользователей

```
6 # PAM authentication. Preferred nowadays by most systems.  
7 # PAM is typically used with either userdb passwd or userdb static.  
8 # REMEMBER: You'll need /etc/pam.d/dovecot file created for PAM  
9 # authentication to actually work. <doc/wiki/PasswordDatabase.PAM.txt>  
10 passdb {  
11     driver = pam  
12 }  
13  
14  
15 ##  
16 ## User databases  
17 ##  
18  
19 userdb {  
20     driver = passwd  
21 }  
22
```

Рис. 4: auth-system.conf.ext

Настройка почтовых ящиков и Postfix

```
+
15 # There are a few special variables you can use, eg.:
16 #
17 #    %u - username
18 #    %n - user part in user@domain, same as %u if there's no domain
19 #    %d - domain part in user@domain, empty if there's no domain
20 #    %h - home directory
21 #
22 # See doc/wiki/Variables.txt for full list. Some examples:
23 #
24 #    mail_location = maildir:~/Maildir
25 #    mail_location = mbox:~/mail:INBOX=/var/mail/%u
26 #    mail_location = mbox:/var/mail/%d/%1n/%n:INDEX=/var/indexes/%d/%1n/%n
27 #
28 # <doc/wiki/MailLocation.txt>
29 #
30
31 mail_location = maildir:~/Maildir
32
```

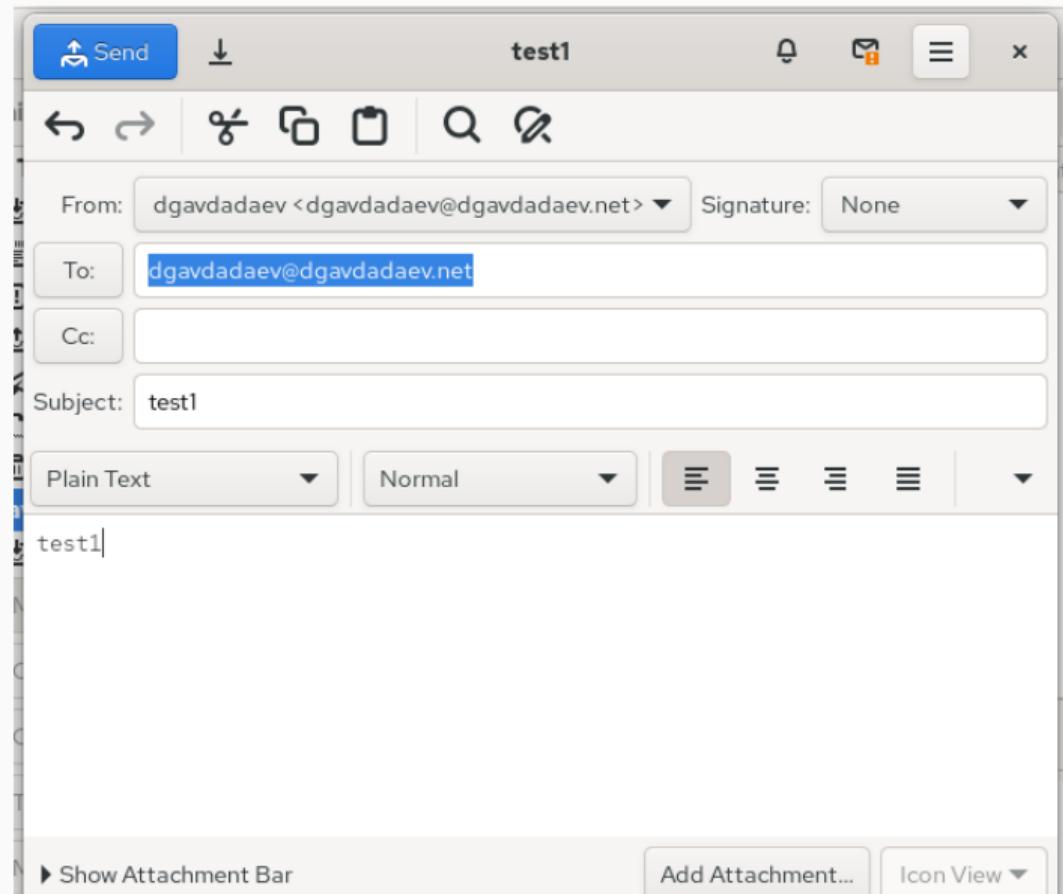
Рис. 5: 10-mail.conf

FirewallD: разрешение почтовых служб

```
[root@server.dgavdadaev.net server]# firewall-cmd --add-service=pop3 --permanent
success
[root@server.dgavdadaev.net server]# firewall-cmd --add-service=pop3s --permanent
success
[root@server.dgavdadaev.net server]# firewall-cmd --add-service=imap --permanent
success
[root@server.dgavdadaev.net server]# firewall-cmd --add-service=imaps --permanent
success
[root@server.dgavdadaev.net server]# firewall-cmd --reload
success
[root@server.dgavdadaev.net server]# firewall-cmd --list-services
cockpit dhcp dhcpcv6-client dns http https imap imaps pop3 pop3s smtp ssh ssh-custom
[root@server.dgavdadaev.net server]# restorecon -vR /etc
[root@server.dgavdadaev.net server]# systemctl restart postfix.service
[root@server.dgavdadaev.net server]# systemctl enable dovecot
Created symlink '/etc/systemd/system/multi-user.target.wants/dovecot.service' → '/usr/lib/systemd/system/dovecot.service'.
[root@server.dgavdadaev.net server]# systemctl start dovecot
[root@server.dgavdadaev.net server]# ]
```

Рис. 6: Firewall настройки

Тестирование с клиента через Evolution



Тестирование с клиента через Evolution

The screenshot shows the Evolution email client interface. The top menu bar includes options like 'Send / Receive', 'Inbox (1 un...)', 'Reply', 'Group Reply', and various navigation icons. The main window displays the 'Inbox' folder, which contains one unread message from 'dgavdadaev <dgavdadaev@dgavdadaev.net>' with the subject 'test1'. The message was received 'Today 11:04'. On the left, a sidebar lists other mail folders: Drafts, Junk, Outbox, Sent, Templates, Trash, and a specific folder for 'dgavdadaev@dgavdadaev.net' containing 'Inbox (1)'. Below the inbox, there are links for Mail, Contacts, Calendar, Tasks, and Memos. A 'To Do' sidebar on the right lists tasks for 'Today', 'Tomorrow', and dates from '12/02/...' to '12/07/...'. The bottom pane shows the message details: From: dgavdadaev <dgavdadaev@dgavdadaev.net>, To: dgavdadaev@dgavdadaev.net, Subject: test1.

Анализ журнала почтовой службы

```
Nov 30 11:04:35 server postfix/smtpd[19538]: warning: run-time library vs. compile-time header version mismatch: OpenSSL 3.5.0 may not be  
compatible with OpenSSL 3.2.0  
Nov 30 11:04:35 server postfix/smtpd[19538]: connect from client.dgavdadaev.net[192.168.1.30]  
Nov 30 11:04:35 server postfix/smtpd[19538]: DC8312034B68: client=client.dgavdadaev.net[192.168.1.30]  
Nov 30 11:04:35 server postfix/cleanup[19544]: DC8312034B68: message-id=<c8cc1a17c58e712766c57981c5c6539f0ee14a43.camel@dgavdadaev.net>  
Nov 30 11:04:35 server postfix/qmgr[18678]: DC8312034B68: from=<dgavdadaev@dgavdadaev.net>, size=559, nrcpt=1 (queue active)  
Nov 30 11:04:35 server postfix/smtpd[19538]: disconnect from client.dgavdadaev.net[192.168.1.30] ehlo=1 mail=1 rcpt=1 data=1 quit=1 comma  
nds=5  
Nov 30 11:04:35 server postfix/local[19545]: DC8312034B68: to=<dgavdadaev@dgavdadaev.net>, relay=local, delay=0.01, delays=0/0/0/0, dsn=2  
.0, status=sent (delivered to maildir)  
Nov 30 11:04:35 server postfix/qmgr[18678]: DC8312034B68: removed  
Nov 30 11:04:43 server dovecot[18890]: imap-login: Login: user=<dgavdadaev>, method=PLAIN, rip=192.168.1.30, lip=192.168.1.1, mpid=19573,  
TLS, session=<KMxt1M1ESNzAqAEe>  
Nov 30 11:04:43 server dovecot[18890]: imap-login: Login: user=<dgavdadaev>, method=PLAIN, rip=192.168.1.30, lip=192.168.1.1, mpid=19578,  
TLS, session=<V05u1M1ETtzAqAEe>
```

Рис. 9: maillog: отправка и получение писем

Проверка почты на сервере

```
[dgavdadaev@server.dgavdadaev.net ~]$ [dgavdadaev@server.dgavdadaev.net ~]$ MAIL=~/Maildir/ mail  
s-nail version v14.9.24. Type `?' for help  
/home/dgavdadaev/Maildir: 2 messages 1 unread  
  1 dgavdadaev      2025-11-30 11:04  18/668  "test1  
►U 2 dgavdadaev      2025-11-30 11:05  18/668  "test2  
& q  
Held 2 messages in /home/dgavdadaev/Maildir  
[dgavdadaev@server.dgavdadaev.net ~]$ █
```

Рис. 10: Maildir через mail

Проверка POP3 через Telnet

```
Escape character is '^]'.
+OK Dovecot ready.
user dgavdadaev
+OK
pass 123456
+OK Logged in.
list
+OK 2 messages:
1 684
2 684
.
retr 1
+OK 684 octets
Return-Path: <dgavdadaev@dgavdadaev.net>
X-Original-To: dgavdadaev@dgavdadaev.net
Delivered-To: dgavdadaev@dgavdadaev.net
Received: from client.dgavdadaev.net (client.dgavdadaev.net [192.168.1.30])
    by server.dgavdadaev.net (Postfix) with ESMTP id DC8312034B68
        for <dgavdadaev@dgavdadaev.net>; Sun, 30 Nov 2025 11:04:35 +0000 (UTC)
Message-ID: <c8cc1a17c58e712766c57981c5c6539f0ee14a43.camel@dgavdadaev.net>
Subject: test1
From: dgavdadaev <dgavdadaev@dgavdadaev.net>
To: dgavdadaev@dgavdadaev.net
Date: Sun, 30 Nov 2025 11:04:35 +0000
Content-Type: text/plain
Content-Transfer-Encoding: 7bit
User-Agent: Evolution 3.52.4 (3.52.4-2.el10_1)
MIME-Version: 1.0

test1
.
dele 2
+OK Marked to be deleted.
quit
+OK Logging out, messages deleted.
Connection closed by foreign host.
[dgavdadaev@server.dgavdadaev.net ~]$
```

Выводы

Итог лабораторной работы

Почтовая система на базе Postfix и Dovecot успешно установлена и настроена.

Проверена работа протоколов IMAP и POP3, отправка и получение писем в Evolution, доступ к сообщениям через `mail`, `doveadm` и Telnet.

Конфигурации интегрированы в Vagrant-окружение, а provisioning-скрипты дополнены автоматизацией настройки почтовых служб.

Работа почтового сервера подтверждена на всех уровнях тестирования.